

REMARKS

This application is a continuation of serial no. 09/318,396, now U.S. Patent 6,270,698. The '396 application included method claims 1-19 which were elected and allowed without amendment, and product-by-process claims 20-27 which were not elected.

The subject matter of claims 1-12 of the present application (serial no. 09/911,135) is derived from the original product-by-process claims 20-27 of the parent '396 application. The present claims 1-12 at issue contain the same limitations as the method claims which were allowed in the '396 application. These defining limitations include, *inter alia*:

- A. For a variable pressure two-plate mold assembly (claim 1):
 - closing the plates together under a primary claim pressure;
 - partially filling the mold cavity to a velocity-pressure (VP) changeover position;
 - applying a secondary claim pressure greater than the primary claim pressure to perform a coining operation on the acrylic resin material;
 - holding the injection screw according to temperature and pressure parameter;
 - advancing the injection screw according to packing time and pressure control parameters;
 - allowing the acrylic resin material to solidify and cool, and
 - ejecting the negative diopter lens out of the mold.
- B. For a variable pressure three-plate mold assembly (claim 7):
 - closing at least two of the three mold plates together under a primary clamp pressure;
 - advancing the injection screw to partially fill the mold cavity with acrylic resin material and to reach a velocity-pressure (VP) changeover position;
 - applying a secondary clamp pressure greater than the primary clamp pressure to perform a coining operation on the acrylic resin material in the mold cavity;
 - holding the injection screw according to time and pressure control parameters;
 - advancing the injection screw according to packing time and pressure control parameters;
 - allowing the acrylic resin material to solidify and cool;

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- separating two of the at least three mold plates and ejecting a molded acrylic lens from the mold cavity.

As explained in Applicant's Response filed in the '396 application on October 19, 2000, the applied prior art references of Maus '769, Japanese Document 61-66623 and Ratkowski '065 do not disclose or suggest this combination of steps for production of stress-relieved negative diopter lenses by molding of acrylic material. A copy of the Response dated October 19, 2000 is provided herewith. The Examiner found, as stated in Paper No. 9, page 3, the Applicant's comments directed to the art rejection to be probative, and allowed claims 1-19. All of the limitations of these claims are present in the pending claims 1-12.

As explained in the Response of October 19, 2000, in both the two and three-plate molding processes (as defined by pending claims 1 and 7 respectively), the velocity-pressure changeover point or position is used for both injection control (speed v. pressure) and triggering the coining/full-tonnage operation of the mold clamp. There is then additional screw advance under full clamp tonnage or "secondary clamp pressure". The prior art does not disclose or suggest this sequence of molding process steps, nor does it suggest manufacture of stress-relieved negative diopter lenses by such processes.

In addition to the points made in the Response of October 19, 2000, it can further be noted that Maus '769 describes a molding process wherein compression takes place on the "B" half of the mold assembly, opposite of Applicant's process wherein compression is on the "A" half of the mold assembly. Also in Maus and other prior art, the power of the lens is determined by the extent of compression by continued driving of the screw. Japanese Document 61-66623 describes continued injection after full compression to compensate for shrinkage. In the process for making the products as defined by the pending claims, there is no additional injection after the screw times out. The mold is filled at relatively low tonnage up to the velocity-pressure changeover point, then up to high tonnage upon the stack height which determines the power of the lens(es). The injection pressure, fill rate and temperature are optimized for stress-relieving the lenses, with temperature being the most critical parameter for the stress-relief property. Although these parameters are controlled in other types of molding processes, Maus and the other prior art does not identify temperature as a critical parameter for stress-relief. For at least

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these reasons, the subject matter of the pending claims is not suggested by the cited references singularly or combined.

Allowance of claim 1-12 is therefore respectfully requested.


CONCLUSION

In view of the foregoing, it is respectfully submitted that all claims are patentably distinct over the art of record and in condition for allowance thereof. If the Examiner believes there are any further matters that need to be discussed, the Examiner is invited to contact the undersigned.

If there are any other fees necessitated by the foregoing communication, please charge such fees to our Deposit Account No. 50-0959, referencing our Docket No. 109769.0001.

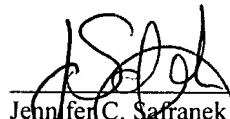
Respectfully submitted,
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MAIL CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this correspondence (along with any other paper referred to as being attached or enclosed) is being deposited on the below date with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the: Mail Stop AF Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


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(Typed or Printed Name of Person Mailing Paper)

Date: 1.28.04